

REMARKS/ARGUMENTS

Reconsideration and allowance in view of the following remarks are respectfully requested.

At the outset it is respectfully submitted that the finality of the Examiner's action is premature. In that regard, it is noted that original claims 1, 5-7, and 9-12 were rejected in the Examiner's first Official action over Ito in view of Inoguchi. The Examiner has newly rejected claims 1-16 over Inoguchi in view of Ito. It is respectfully submitted that the Examiner's change of primary referenced materially changes the Examiner's grounds for rejection so that the Action should not have been made final. In any event it is respectfully submitted that the claims presented are not anticipate by nor obvious from the combination of Inoguchi and Ito, for the reasons advanced hereinbelow. In the event the Examiner withdraws the rejection based on Inoguchi or Ito in whole or in part and makes a new rejection of the claims, it is respectfully submitted that any such new rejection would have to be presented in a non-final Official Action, as not necessitated by any amendment presented by applicant.

Claims 1-16 were rejected under 35 USC 103 as being unpatentable over Inoguchi in view of Ito. Applicant respectfully traverses this rejection.

The invention is characterized in that an extruding screw is provided that includes a pressing screw portion for pressing a ceramic material and a dispersing screw portion for dispersing the ceramic material, wherein a lead of the pressing screw portion is peripherally displaced from a lead of the dispersing screw portion in the area where the structure switches from the pressing screw portion to the dispersing screw portion. Accordingly, in the present invention, the ceramic material is effectively dispersed in a valley portion or gap 44 formed by the lead displacement.

Inoguchi provides, as noted by the Examiner, first and second laterally spaced screws, each screw having a thread defined along the length thereof, with the threads

or leads of each screw apparently extending continuously about the periphery or circumference of the screw in a spiral. Thus, as acknowledged by the Examiner, Inoguchi does not teach or suggest a pressing screw portion and a dispersing screw portion wherein there is a gap in a peripheral direction between the rear end of the second lead surface(s) and the forward end of the first lead surface(s) of the respective screw portions.

The Examiner seeks to overcome the deficiencies of Inoguchi by relying upon the secondary reference to Ito. It is respectfully submitted, however, that Ito does not overcome the deficiencies of Inoguchi in respect to the claimed invention. In this regard, the Examiner alleges that Ito discloses in Figure 6 "a circumferential gap in the standard continuity of the screw extruder (where element 15 is) between the front and rear lead of the screw extruder". Applicant respectfully but strongly challenges the Examiner's characterization of the claimed invention in this regard and interpretation of Ito. Firstly, Applicant does not merely claim a gap in the standard continuity of the screw between the front and rear leads. Applicant claims a gap between the rear ends of the lead surfaces at the rear end of the dispersing screw portion and the forward end of the of the first lead surface at the forward end of the pressing crew portion. So the gap is between ends of the lead surfaces, not merely between lead surfaces. In Figure 6 Ito schematically depicts "a screw 11". The threads of the screw are schematically depicted in that Figure as inclined bars. As would be understood by any skilled artisan reviewing the Ito disclosure, the schematic representation of the screw thread does not depict a discontinuous thread or lead but rather a spiral thread along the length of the screw. It is also evident from the disclosure relating to Figure 6 that Ito discloses a continuous thread on his screw 11, although the diameter of the screw shaft varies to vary the gap between the screw shaft and the housing. Thus, Ito discloses, in respect to an extrusion screw, no more than Inoguchi; Inoguchi simply schematically depicts the threads of his screw with inclined bars to the right whereas Ito depicts his threads with inclined bars to the left. Ito does not disclose and would not be understood to

disclosure first and second thread portions having adjacent lead ends that are spaced apart in a peripheral direction. Thus, the Examiner's conclusion that there is circumferential gap between lead ends in the vicinity of reference number 15 is completely without any basis in Ito.

For the reasons advanced above, it is respectfully submitted that Inoguchi, even if combined with Ito, would not anticipate the claimed invention because, contrary to the Examiner's characterization of Ito, Ito discloses a continuously thread and not peripheral gap between thread or lead ends as claimed in applicant's claim 1.

Claims 7-12 are also submitted to be distinct from Inoguchi and Ito. With regard to claim 7, Inoguchi and Ito do not teach or in any way suggest that a part of the surface of the screw portion has a differently shaped portion having a shape different then the surrounding area, much less the provision of a protrusion or a depression (claim 8). Likewise, there is no teaching in Inoguchi or Ito of a differently shaped portion arranged on a lead face of the thread of the second portion (claim 9) or by a through hole through the lead surface of the lead (claim 10). Thus, the Examiner has not established a case of *prima face* obviousness with respect to these claims either.

The Examiner has also rejected claims 1-16 under the judicially created doctrine of double patenting over claims 1-13 of U.S. Patent No. 6,790,025 because, allegedly, if the claims are allowed they would improperly extend the "right to exclude" in the '025 patent. Applicant respectfully traverses this rejection.

The Examiner asserts that the subject matter claimed in the present application is disclosed in the '025 patent because *inter alia* "the designs of both systems are 'very similar' with respect to the drawings in the specification". Applicant respectfully but strongly disagrees. The ridges in the dispersing area of the '025 patent are disk shaped and are not described as, illustrated as or otherwise disclosed as, having leads that are peripherally displaced from leads of the pressure portion. Indeed, the disks are circumferentially continuous so that there is no end that can be peripherally displaced

from an end of another screw portion. The flanges of the disk portion can only be, and must be, axially displaced from other screw portions. Since there is no lead or trailing end to be displaced, the '025 patent does not "anticipate" applicant's claims so as to serve as a basis for the Examiner's double patenting rejection. Likewise, the '025 patent does not teach or in any way suggest the subject of applicant's claims 13 and 14 as clearly there is no circumferential offset as recited therein and the thread sections taught in the '025 patent are axially offset.

With regard to the Examiner's statement that the '025 patent "appears to anticipate" the language claimed in application 669,599, it is not seen what relevance this had to the present case because the present case is Application 669,507. To the extent the Examiner asserts that the '025 patent anticipates the claims of the present case, this is simply not true, as noted above. Because the '025 patent does not teach or suggest peripherally (circumferentially) gapped screw portions, the subject matter claimed in the present case is not "anticipated" by the '025 patent. This is underscored by the fact that the Examiner has not rejected applicant's claims under Section 102(a), based on the Yamaguchi published application, which published on February 7, 2002. Similarly with respect to claim 7, Yamaguchi does not teach or suggest that a part of the surface of the displacing portion has a shape different than the surrounding area, much less a protrusion or a depression or a through hole as recited in the various dependent claims to claim 7.


For all the reasons advanced above, it is respectfully submitted that the Examiner has not established that the subject matter claimed in the present case is disclosed in the '025 patent or that the claims of the '025 patent "anticipate" the claims of the present application. Therefore, the Examiner has not established that the claims of this application are properly rejected under the judicially created doctrine of double patenting. Reconsideration and withdrawal of the rejection is requested.

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All objections and rejections having been addressed, it is respectfully submitted that the present application is in condition for allowance and an early Notice to that effect is earnestly solicited.

Respectfully submitted,

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